

Note de la relève stratégique – septembre 2014

THE NEW NUCLEAR ORDER:

The French nuclear weapon as a structure of consensuses

Clément Larrauri¹

Master's of International Affairs at Science Po.

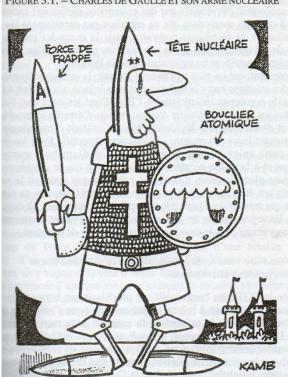


FIGURE 3.1. - CHARLES DE GAULLE ET SON ARME NUCLÉAIRE

From Hecht, 2004, p. 119 (caricature in La Vie Ouvrière, 1964).

¹ Lauréat du Prix IRSEM-PSIA 2014, Clément Larrauri s'exprime à titre personnel. Ses propos ne sauraient engager ni l'IRSEM, ni le ministère de la Défense.

Sommaire	
١.	Crafting the Nuclear Ideology at the service of the "French privilege" (1945-1978)
١١.	The political equilibrium of the bomb (1970-2008)
III.	The French Nuclear Consensus and contemporary Nuclear Crossroads11

Should the cliché of the Frenchman be updated and his *baguette* replaced with the red button commanding the highly unnatural resources of the Tricastin vineyards? This is what the concept of the French nuclear consensus, or exception, seems to suggest. The conventional wisdom affirms that, whereas in other countries the bomb is either a national drama or the caprice of a tyrant, the French would have developed some kind of "pacific coexistence" with the Absolute Weapon. Analyzing the French nuclear consensus means for a national to scrutinize some sort of silent evidence: the country "has the weapon" as if it came to the world with it. In lieu of an enthusiastic commitment to deterrence -that may occasionally spring up in the official discourse -, the French public opinion usually accepts it as its fate.

The main pitfall of usual approaches based upon the "nuclear consensus", far from being their irrelevance, is their elusive character. Undoubtedly, there is in France a peculiar approach to the bomb that should be taken into account as an element of strategic policy; but it should not be oversimplified and certainly not reduced to a mere instrument of mobilization. The classical two-sentences long description of the link between the bomb and the people in France does not explain why the debate over nuclear techniques has been "atomized", monopolized by the President and made 'irrelevant' *a priori* in the public sphere; it does not explain the consequences on deterrence and makes no contribution to the understanding of the link between politics and technology. Actually, the very idea that the consensus straightforwardly and consistently applies to every "nuclear issue" –i.e. that the same "French spirit" inspires the reliance upon nuclear energy, the French nuclear doctrine, the decision to proliferate, the reforms of the arsenal, the views on tactical weapons, the French scholarly dissidence in the theorization of deterrence and whatever else- is itself a product of the all-encompassing nuclear ideology crafted from 1945 to 1970.

This paper, aiming at reading the French nuclear weapon as a structure of consensuses and interpreting in this light the challenges it is currently facing, does not suggest that this approach of the weapon only applies to France. On the contrary, an interesting and lengthy argument could be made as to the degree of acceptance, mobilization and detachment from the popular basis that the weapon requires. Arguably, some sort of dilemma could be drawn between the democratization of the bomb and the perceived truth of strategists; nuclear defense may have been a top-down expedient in Cold War times but contemporary requirements in terms of transparency and morality probably set up a new deal.

The first section of this paper will try to deal with the crafting of the nuclear ideology under the IV° and V° Republics in France, and thus to describe the essence and fundamentals of the so-called "nuclear consensus" (I), while the second will put it in perspective and present how and why a series of debates and adjustments of the various consensuses affected the French nuclear program (II). The last section is dedicated to a set of analyses and policy recommendations that stem from the encounter between this structure of consensuses and current nuclear crossroads.

I. Crafting the Nuclear Ideology at the service of the "French privilege" (1945-1978)

a. The Nuclear Ideology

The Nuclear Ideology was crafted in three main steps and at the intersection of the technological prowess, the industrial reconstruction in the aftermath of the war, the national trauma, the security doctrine and other grounds still. While, in the immediate postwar period, the IV° Republic gave the program its impetus, the Gaullist era provided it with meaning and overall coherence. In turn, the conversion of leftist parties during the 1970s enacted the political lockout. Each period constituted a turning point which allowed the project to gain different kinds of legitimacy and finally produced the so-called consensus. The nuclear consensus has been one important factor of rigidity and stability at the political level that characterized the imperative of surviving the Cold War. For sure, there is something in the immobility associated with the bomb that can be linked to what Hassner called the "freezing effect" of the period.

The contribution of the 'weak' IV° republic can be felt at the level of the internalization of the nuclear technique, as the regime progressively directed the country's resolve towards the nuclear project. At the end of the Second World War, French national identity was in disarray, deeply hurt by a third war in less than one century and a humiliating defeat. Thus, linking the future of the country with what quickly came to be seen as its glorious past is part of what the IV° Republic brought to the weapon. The prestige dimension, put forth by Sagan in his analysis of the motivations proliferation ('norms model'), is however more subtle. No Frenchman ever believed that a collection of nuclear warheads could restore the status of the country, but the technological achievement and the paradoxical will not to be left behind were something the nuclear project could offer. After all, from Curie to Becquerel, Perrin and Goldschmidt to Joliot-Curie, those heroic engineers and physicians, there was something French in Hiroshima –whose perception was not straightforwardly apocalyptic at the time, but more generally 'mystical'.

Consequently, both the civilian and military nuclear programs can be interpreted, as Gabrielle Hecht argues, within the wider framework of a technocratic reconstruction of the country whose identity implications run from the "republican meritocracy" to a tradition of state-led investment and activism (see the recent saga of the Rafale e.g.). In other words, there exists in France an acute perception of the *building* of the bomb that was carried out essentially by corporate regimes (mainly here through the 'technocratization' of the Commissariat à l'Energie Atomique -CEA) and finally staged in the media clothed as a nationalistic fascination for the nuclear technique. In this regard, the 1945-8 ZOE pile was an important event, just like the 1960 Reggane test was a "half-cosmic, half-transcendental spectacle"². To Hecht, the nuclear project was not "French in essence" but an attempt to "define Frenchness in the postwar world"³: it was redemptive, almost religious. René Rémond formulated it as "exalting reconversion"⁴. Drawing upon works in sociology of sciences that emphasize the cultural dimension of techniques (Bruno Latour's work e.g.), she concludes that the result was that "the idea of a non-nuclear France was totally inconceivable"⁵.

What would later turn to be central in the Gaullist perception of the bomb, namely political freedom of action and feeling of insecurity, was already cruelly experienced under the IV° Republic. The Dien Bien Phu humiliation (René Pleven was proposed America's extended deterrence), the 1954 ECD episode and the 1956 Suez Crisis (which evidenced the tacit agreement of the two Great Powers that no other player would be condoned), unambiguously reawakened the CEA De Gaulle had

² Hecht, *The Radiance of France*, p. 178.

³ Ibid., p. 8.

⁴ Rémond, *Notre Siècle*, 1988, p. 609.

⁵ Ibid., p. 18.

created in 1945 and which had been marginalized (notably because of the witch-hunt directed against the communists –and Joliot-Curie especially). France renounced to the principle of 'nuclear abstention' in 1957 and Felix Gaillard, himself a former leading defender of the bomb within the CEA, made the program public in 1958.

Prophetically, De Gaulle pleaded in his 18th June 1940 call that « *stricken down today by mechanic power, we will be able to triumph in the future with the aid of a superior mechanic power"*. His obsession with the weapon undeniably shaped the program and even inoculated it something close to determinism. It brought a twofold safeguard to the 'consensus', first by associating the weapon with the Gaullist legacy (one of the few sets of political consensus in contemporary France) and a policy generally seen as both a landmark and a synthesis of French history recast in the modern world; second by providing the theoretical foundation and calibrating the weapon for the country. The outcome was a logic articulation between the context and the spirit which made easier the internalization not only of the presence of the weapon, but more broadly of *the underlying logic of deterrence in a form compatible with self-perceptions* (or misperceptions) in the country. In other words, and bringing Alexander Wendt's words to another context, the nuclear bomb is what states make of it.

The proliferation was first linked to a diagnosis: the US extended deterrence is not credible and France's very survival cannot lie in anyone else's hands; even less under NATO's responsibility, which De Gaulle distrusted. In the famous conference of September 5th 1960, De Gaulle declared that *"Taking into account the nature of these weapons [...], France cannot leave its fate and even its own life to the discretion of others"*. By "the nature of these weapons", he meant both the credibility of the sacrifice involved by Cold War deterrence and the reactivity of the retaliation (to him, the nuclear response would have come too late).

The mythology of the nuclear program puts forth the Suez crisis as the detonator. Undoubtedly, it was the moment that most cruelly revealed the country's impotence and subordination. Pierre Mendès-France is said to have confessed that *"without the bomb, we are nothing"*. In this light, the French proliferation was closely associated with the ambitious policy presenting France as an alternative for third world countries; the Gaullist "Arabic Policy" embodies the response to the Suez wound. Bucquet thus reiterates this classical stance when he states that: *"Nuclear weapons offered France freedom of action and influence and gave France the ability to play a key role in international community as a global power. France gained the image of a strong modern nation independent from the bipolarity of the cold war"*⁶. To what extent is the bomb itself, rather than the smart political positioning chosen by the Gaullist government and its followers and the successful reconstruction of the country, to be thanked for the ability of France to preserve its rights and influence in the international community is as impossible to assess as the real role of the weapon in maintaining peace and protecting the country. Nevertheless, the incredible steadfastness of the nuclear ideology is well illustrated by the persistence of this discourse.

Even though the necessary response to the strong critique emanating from the Left made the argumentation in favor of the weapon necessary, the nuclear program was a strictly kingly move. To a certain extent, any project of "proliferation" requires popular support –generally expressed through a unanimous "feeling of insecurity" in the Copenhagen School's fashion⁷-, but secrecy is always stronger. In France, the nuclear ideology functioned as a mobilization tool only because it was directly associated with the Gaullist "*idée de la France*". Actually, there exist very few comparisons – except, arguably, today's Iran- of proliferating states that openly pursued nuclear armament as a

⁶ Bucquet, "French Nuclear Policy in the New Century", p. 1.

⁷ I mean here the works of Barry Buzan (see Buzan, Waever & De Wilde, *Security: a new framework for analysis*, 1997).

policy; very few –possibly no other- cases, then, where popular support to the bomb was, relatively, preferred to secrecy (be it to conceal cooperation or obsession of the regime). In this regard, the 'policy of independence' offered a vision that did sustain the nuclear effort (a very costly one in the case of France). In its character, the nuclear nuclear program and doctrine used the V° Republic constitutional dispositive to add nuclear deterrence to the kingly "domaine reservé"⁸ of the president -which strongly favored the extinction of the debate when the process was completed. Then, François Mitterrand's 1983 statement that "in France, deterrence is the head of the state, it's me" unsurprisingly echoes Louis XIV's absolutist "the state is me". This aspiration to strict and plain autonomy in order to be a "full nuclear power" explains why, under the CEA-DAM authority and the political activism of De Gaulle and Guillaumat, the French nuclear sector has developed in order to include almost every kind of nuclear military and civilian technology (ex: nuclear propulsion, missile programs, modernized of nuclear warheads, etc.). Mastering technique in the modern age was also a way not to be propelled out of history.

This following step comprised the elaboration of the doctrine and the construction of a dissident branch of strategic thinking on deterrence. The autonomy of strategic thinking must not be neglected: it is a crucial factor, as the writings on the cultural side of deterrence indicate⁹. The French School, besides distancing itself from American thinking and developing a suitable theory of deterrence in its own context, contributed to build a deep faith in the concept of deterrence and reflected the very political settings of the ideology. The three major theoreticians were Gallois, Poirier and Beaufre, in the *Centre de Prospective et d'Evaluation* created in 1964.

In its original form, the French nuclear doctrine included:

- (1) The conception of nuclear deterrence as an "equalizer" embodied by the principle of "strong-to-the-weak deterrence". Drawing upon a mystic understanding of the bomb as the "absolute weapon" (Brodie) and the idea of a threshold of intolerable damages (upsetting the very notion of proportionality), this idea strongly supports the active role of the bomb as a political strength in the nuclear ideology.
- (2) The refusal of the scenario of nuclear war (tightly linked to the previous point), from which ensues a total reliance upon the concept of deterrence.
- (3) The principle of autonomy which involved the ability to function apart from NATO and implied the development of a full-fledged arsenal. The point was crucial in political terms, and its centrality in the doctrine makes the French bomb extremely political when compared to other countries.
- (4) The principle of "strict sufficiency" of the nuclear arsenal (cf. II).
- (5) The "anticity targeting", since the massive retaliation aimed at inflicting maximum damages to the enemy's 'substance'. In operational terms, the "triad" offered a combination of airborne forces, SLBMs and medium-range missiles (originally *Pluton* SRBMs), interpreted as being "sufficient" to inflict intolerable damages to the aggressor.
- (6) The notion of vital interests as those that would entail, if threatened, retaliation (territorial integrity, essential components of its sovereignty and identity, etc.). A voluntary ambiguity on the definition of "vital interests" was to be preserved (just like in the British doctrine): it was reassessed, notably by Tertrais, while redacting the 1994 White Book¹⁰. Retaliation was to remain the exclusive and discretionary prerogative of the President.
- (7) The principle of "ultimate warning" (*frappe de semonce*) was controversially added in the 1970s (cf. II).
- (8) The principle of "all azimuths deterrence" (or 'to whom it may concern' –Quinlan) was introduced by General Ailleret in 1967 as a complement to the principle of independence of

⁸ The Decree of January 14th 1964 made deterrence a presidential prerogative.

⁹ See of course the landmark work of Colin S. Gray, *Nuclear Strategy and National Style*, 1986.

¹⁰ Tertrais, *The French Nuclear Deterrent after the Cold War*, 1998.

the deterrent. The aim was to perfect the claim of "independence" by not targeting specifically the USSR and defending the integrity of the territory in all directions.

The ultimate phase was much more political; it can be described as the locking out of the nuclear consensus through the termination of the debate. While the constitutional settings of the V° Republic (extensive use of the so-called "rationalized parliamentary regime" under art. 49-3 and the presidential institution) allowed the Gaullist governments to create a *fait accompli* (notably by withdrawing from the integrated command of NATO in 1966) and circumvent a splintered opposition to the nuclear program, the consensus could only be built through the reunification of all political parties around the bomb. Indeed, for France as well as Great Britain, the bomb was a political stake that was not legitimized *per se* by the geopolitical context as it was for Russia or the US. Moreover, by constructing it as a component of national identity and the cornerstone of its defense policy, France could not marginalize deterrence as other countries did.

The consensus lockout was twofold. On the one hand, the content of the ideology made possible the reconciliation of patriots and pacifists; on the other hand, a purely political calculus led the Left to convert itself to the nuclear faith. The change was dramatic: some analysts argued, in the case of communists, that they had even become *"more royalists that the king"*. The French Green movement, notwithstanding Brice Lalonde's emotional reactions to the *'forfeiture'* –a term connoted in the French context– committed by his socialist allies in the early 1980s¹¹, has also proved, since then, strikingly accommodating on this issue.

The main driver of this evolution certainly was that the contestation of the deterrent was not rewarding in political terms. During the Cold War, the consensus was still very much marked by a 'consensus on the threat', and the smartness of the Gaullist-constructed equivalence between freedom of action and the bomb resulted in the fact that contesting the bomb was interpreted as a contestation of France's sovereignty. When it came to be contested in the 1960s, as the polls show, it was tightly linked with the rejection of De Gaulle himself¹²; afterwards however, leaving the safe areas of Gaullist orthodoxy came to be politically costly. As soon as 1969, François Mitterrand bluntly described the *fait accompli*, stating that "our atomic armament will [soon] be irreversible. We won't drown it like little dogs"¹³.

Politically speaking, the consensus was also a byproduct of the unification of the Left within the 1972 *Programme Commun* (planning the dismantlement of the entire strategic nuclear force -the Marchais Report of the communist party used the term "destruction"). Dobry argues that leftist parties had to regain influence over the army: communists had been flushed out, and the socialists were to run a state. Some form of reciprocal emulation took place between both parties. The PC made this choice to reintegrate the political arena, whereas the PS pragmatically deemed worthless to oppose what it already considered as "consensual". In other words, the Left locked the consensus because it considered that it already existed. Progressively, cleavages within both parties vanished too. Classical accounts usually point out that very committed forces within the socialist party led the movement, especially Charles Hernu and Chevènement's CERES. On May 2nd 1977, the Kanapa Report justified the new position of the PC on the grounds of independence vis-à-vis the NATO (evoking their early support to this aspect of De Gaulle's policy) and the reassuring "*all azimuths*" element of the doctrine. The Socialist Party dedicated a special convention to the issue in January 1978 which enacted its conversion through an interesting inversion: it would 'convert' the deterrent to the 'spirit of the left' (which actually meant no change, except the 'collegiality of the button' -

¹¹ Brice Lalonde reacted to the decision of the Ministers' Council not to resort to a referendum on the French civilian program.

¹² Hecht, Op. Cit., p. 218.

¹³ Taccoen, *Le Pari Nucléaire Français*, p. 80. Translation is mine.

never implemented-, and global zero but 'in the long-run'). The rallying cry to the nuclear ideology was straightforward. Socialist minister Pierre Mauroy claimed in 1981 that « *if General De Gaulle was able to lead an independent military policy* [...] *it is because he chose to endow the country with the nuclear weapon*^{"14}.

All in all, "consensus" might be an improper terminology. Dobry wonders if "immunity" would not be more appropriate: "consensus means not agreement"¹⁵, but rather a political discourse of mobilization. Once the debate was ruled out, it became easy to take 'assent' for 'consent'. Quilès says no other thing when he fustigates the transformation of "the absence of debate into a debate already settled". Nevertheless, the subtle views Dobry develops about the French nuclear consensus with the aid of political science tools do not take into account the "nuclear atmosphere", the palpable product and dimension of this consensus, whose interaction with the "political lock" and arguably the doctrine is not negligible.

b. The content of the 'nuclear consensus'

What exactly is the content of the "consensus", the set of political decisions supposedly backed *erga omnes* by popular will? The 'consensus' refers to the possession of the bomb and its utilization as a deterrent of existential threats; however, the nuclear ideology in general is a much broader set of policy orientations including (1) the "*politique d'indépendance*", (2) a cultural affinity with the technology, (3) the acceptation of the underlying assumptions of the doctrine (nuclear peace e.g.). These elements are not monolithic: for instance, what strategists used to call the "consensus on the threat" during the Cold War does not hold anymore today. There are various 'consensuses' within the 'consensus'. Interestingly, polls persistently show that though the detention of the weapon and the logic of deterrence are generally not questioned, the *use of the weapon* is categorically rejected by the French public opinion. This is in line with the doctrine that explicitly rejects the possibility of nuclear war (a position reaffirmed in the 1994 White Book): this reluctance to accept Gray & Payne's claim that "victory is possible"¹⁶ has always marked the French school of strategy. This was an important part of Raymond Aron's criticism in the 1960s¹⁷.

This overwhelming belief in the virtues of deterrence may have unexpected consequences on the nature of this consensus. France explicitly adopted the thesis of "nuclear peace" (itself resulting from the historical teaching that "the horrendous thing is not the nuclear weapon / it is war itself"¹⁸) and thus settled the theological debate. This is what Gen. Gallois called to *"take the best part of the atom"*¹⁹. Thus, the French deterrent may arguably be described as the *expression of the contemporary "post-historical spirit" in France*: the weapon would be legitimate not because it deters the USSR or proliferating states, but because it deters war itself and provides France with what three quasi-total wars had turned into its holy grail, namely an indestructible guarantee of security. This would justify the centrality of deterrence in the French security dispositive by supporting the (wrong) thesis that the "bomb suffices".

This argument is obviously polemical; especially since this "way out of history" offered by the bomb contradicts the still powerful thinking of France's grandeur. Certainly, France in general does

¹⁴ Taccoen, Op. Cit., p. 175. Translation is mine.

¹⁵ Dobry, « Le Jeu du Consensus »: politicians "know, in practice, that when people believe there exists [...] something like a "consensus", it becomes fussy to wonder if it is right or wrong, for it would be dangerous not to take it into account in their tactics, their appreciations and their calculus" (translation is mine).

¹⁶ Gray, Colin, & Payne, Keith, « Victory is Possible » in *Foreign Policy*, n°39, Summer 1980.

¹⁷ Aron, *Le Grand Débat*, 1963 ; see also *Le spectateur engagé*, 2004.

¹⁸Report of the French Senate, « L'Avenir des Forces Nucléaires », p. 36. Translation is mine.

¹⁹ Gallois in Chaliand & Blin, *Dictionnaire de Stratégie Militaire*, 1998. Translation is mine.

not share entirely the will of many European countries to renounce to the perspective of acting militarily (and more broadly, exercising power outside the country). In the light of Kagan's well-known argument that this refusal originates in the perception of weakness rather than the trauma of world wars²⁰, this can also be read through the lens of the oft-cited "delusion of being a great power" instigated by the Gaullist discourse. For instance, while France arguably had a greater freedom of action in relative terms after the Cold War than during this period, the declinist account of the country's downgrading did nothing but becoming even more widespread. Being nuclear in a geopolitical configuration of which deterrence constituted the backbone (the "gyroscope" to take Freedman's wording) and the red telephone the geopolitical highway was much more rewarding than it is in the uncertain and blurred settings of world politics that succeeded the Cold War.

II. The political equilibrium of the bomb (1970-2008)

a. Reforms and revolutions in French Deterrence

Generally, scholarly writings on the French bomb present it as a monolithic set of policy indifferently crossing the ages of French history, whose reform has constantly been postponed, disregarding the strategic context. Rigidities must not be overemphasized; what should be so is how much silent have reforms been. The nuclear program underwent since its debuts a process of normalization. As a general rule, the power relations within the military establishment, the personality of the President (see Chirac's decision to resume the tests in the early 1990s) and, occasionally, parliamentary forces were those motivating these changes. The evolution of the French nuclear arsenal has always been justified by the 'principle of strict sufficiency'²¹, meaning that only the credibility of the deterrent (i.e. essentially the ability to preserve a second-strike capability and retaliate in time when the decision is taken) determined the changes brought to it. Actually, even when preserving the doctrine unchanged, the flexible concepts of "vital interests" and "strict sufficiency" have left room for a variety of interpretations according to the context.

The first period of debates was the 1970s, when the Giscard d'Estaing government was confronted with the perspective of the ANT ("Armes Nucléaires Tactiques", tactical nukes). This debate, that took place in a purely technocratic fashion, was potentially revolutionary. It started from the premise, theoretically supported by the US switch from massive retaliation to flexible response and Schelling's compelling arguments, that another echelon should be implemented, not only for the sake of credibility, but also to avoid unnecessary sacrifice. As soon as 1966, the doctrine included tactical weapons as a way to reduce the conventional superiority of the enemy and render escalation inevitable. Gaining strength during the 1970s, this possibility was finally ruled out by Gen. Mery's doctrine of "enlarged sanctuarization" (1976) that restricted tactical uses by rephrasing them as "pre-strategic deterrence" (ultimate warning). A crucial element, however, was the marginalization of the land army that resulted from the centrality of deterrence (paralleling the dominant role of the USAF in the US). Dobry considers the ANT were an innovation introduced by the military establishment and rationalized *a posteriori*. He describes how the reform continued within the UDF Defense Commission. There, the doctrine was reformulated by introducing concepts such as the sanctuarization of Europe, the notion of 'two levels of deterrence' (anti-forces and anti-cities –the

²⁰ Kagan, "Power and weakness" in *Policy Review*, n°113, June/July 2002.

²¹ <u>Livre Blanc de la Défense Nationale</u>, 2008, Odile Jacob, p. 170: *"France will continue to maintain its nuclear forces at a level of strict sufficiency. They will be permanently adjusted in order to stick to the lowest level compatible with [France's] security"* (translation is mine). It parallels the British concept of "minimal deterrence".

first being obviously tactical and complementing conventional coercion) and an insertion within NATO's deterrent.

These cleavages still exist and illustrate how the doctrine is actually easier to move than the consensus to revive. Today, the official doctrine rejects the idea of continuity between strategic and tactical nuclear forces; and the official practice silences public debate on these issues.

b. The "External Consensus" and the risk of marginalization since the 1990s

The end of the Cold War also resulted in what some called the "revisionist movement", taking advantage of the geopolitical blow to promote drastic changes. There were some proposals as to invent a "strong-to-the-weak" (or the fashionable "strong-to-the-crazy" –which, as Tertrais rightly says, contradicts itself for the crazy cannot be deterred) posture, create the possibility of chirurgical strikes in lieu of anticity targeting and in general promote doctrines of use. All in all however, the general mood was that every strategist called for a change it deemed "inescapable" without really knowing what "adaptation" could mean for France. Loads of articles in these times describe "the new world politics" as a magma of terrorists, asymmetric conflicts, rising proliferation and dispersed threats and conclude that the doctrine would have to adapt to them; but since abandoning the bomb was precluded, and no credible plea for a dramatic revolution was heard, no revolution arose. Similarly, the debate on Anti-Ballistic Missile Defense American projects (DAMB in French) is still in progress. The trendy and evasive way to evoke this indecision in the 1990s was Poirier's concept of "*strategic pause*"²².

The policy has then been to adapt to the second nuclear age by committing France to unilateral disarmament and the existing legal framework (NPT and the 1997 additional protocol, CTBT, Tlatelolco Treaty –Guyana Protocol-, anti-WMD treaties), reversing the policy stemming from minister Couve de Murville's blunt interrogation: "*how to pretend to forbid others, save voluntary renouncement on their part, what we condone for ourselves?*"²³. This was a tremendous shift, deriving from the conclusion that the threats of the second nuclear age would essentially be related to proliferation. Still, however, non-proliferation never ceased to look like a hypocrite posture for a country so much "nuclear addict". The average Frenchman will more easily recognize Couve de Murville's *bon sens* than what is still perceived as the self-claimed right of the West to threaten an aspiring nuclear state with retaliation -or even forbid him to do so- on 'vague culturalist grounds' (e.g. the counter-proliferation doctrines of the US never penetrated the country). The general military trend of the recent years in the West, consisting in substituting quality to quantity in order to face renewed budgetary constraints, may have been a more important contributor to the revision of France's doctrine, both in terms of modernization of and reductions in the arsenal.

Central was what we could call the "external consensus" threatening to marginalize the country. It resuscitated the initial wound of being perceived as an illegitimate bomb-endowed state, embodied in Sagan's accusations on "prestige" grounds (sometimes culturally backed –see McNamara's view on the French proliferation) as well as in the accusation to be the "first proliferator", and further confirmed by US pressure during the development of the program, France's reluctance to join the bilateral arms control (on the ground of the dissymmetry of arsenals) and the non-ratification of the NPT in the 1970s. The "French privilege" got entrapped by the end of the Cold War "condominium". For all these reasons, the 'strict sufficiency' principle began to sound increasingly familiar to the ears of foreign diplomats and the French could argue that they had always refused the principle of the arms race by pioneering the credibility of light arsenals. The truer

²² Lucien Poirier, *La Crise des Fondements*.

²³ Maurice Couve de Murville, Speech on 3rd November 1964. Translation is mine.

commitment to non-proliferation was the signature of the CTBT and the decision to use computer simulation rather than atmospheric or subterraneous nuclear tests (the shift towards subterraneous tests was decided in the 1970s under the constraint of the ICJ²⁴). Indeed, the computerized technology was still imperfect (PALEN-PASEN programs), and many critiques underlined that it would be a major blow to the credibility of the deterrent in the long-run. External pressure and public campaigns were stronger.

The 1995 demilitarization of the Albion Plateau, the switch from the "triad" to the "dyad" (the *Pluton* (SRBM, in 1993), *Albion* (ICBM) and *Hades* (SRBM) ballistic missiles were dismantled), was justified on various grounds, from the credibility of targeting a now reunified friend –namely Germany- to the demirvation of Russia's ICBMs. The "pre-strategic" component was marginalized but rhetorically conserved as an additional task for the air-based nuclear force. By contrast, the *all azimuths* part of the doctrine was reinforced with the process of de-targeting. This choice was relevant in strategic terms since the contemporary world (be it "apolar", "multipolar" or "unipolar") offered neither relevant targets nor specific threats to address for France. Moreover, it is worth noting that the centrality (and even overwhelming domination) of deterrence within the security dispositive in France²⁵ was marginally corrected (a fairer equilibrium was settled with the 1994 White Book) after the Cold War (arguably the Army came to be less involved in deterrence). All these decisions were framed as 'strategic necessity' and involved no popular debate.

In the 2006 speech of Île-Longue President Chirac polemically extended the "vital interests" of France to "strategic supplies and the protection of allied countries" and blurred the distinction between conventional retaliation and nuclear response (stating the response "could be conventional or of another kind")²⁶; but this cannot be interpreted as a re-lifting of the policy. Post-2008 developments have followed this trend: one squadron of the airborne nuclear force has been removed and the process of modernization of the arsenal accelerated by securing long-term investments (simulation programs –Tera, Airix Radiographic Machine, Lancaster House treaty cooperation with the UK-, M-51 ballistic missiles for submarines, ASMP-A cruise missiles for the airborne force, development of the two generations of the famous "Oceanic Nuclear Warheads" – TNO-, transmission programs –HERMES-). No substantial doctrinal adaptation was made in order to face smaller threats since the notion of 'vital interests' remained at a high threshold and the "all azimuths" criterion operationally confirmed by the new 'dyad'.

Overall, the main consequence of the end of the Cold War was the growing indifference of the public opinion to defense issues in general, and the budgetary cut-offs resulted in strategic reorientations that were simply not discussed in the public sphere. Confiscated by high politics and made less and less close to the population's fears, pride and interest, the weapon shifted from an ideological product of consensus to a passive legacy. The perpetuation of the weapon came to be a "just in case" element of security, and the burden of this exhausting bet of being nuclear clearer as time went on. Were left the acute consciousness of the status conferred upon France by the weapon (especially when critiques began to claim for a reform of the UNSC and the thematic of the "decline" gained strength) and the certainty that a major threat could reemerge one day. It must be

²⁴ In the NUCLEAR TESTS Case (New Zealand and Australia sued France to the International Court of Justice), France's commitment to cease atmospheric tests allowed her to escape from the ruling (the court considered this forcefully repeated promise as a binding "unilateral statement").

²⁵ Already during the Cold War, officials of the army overtly explained that French conventional forces would not stand three days against a potential Soviet invasion (e.g. this was put forth as one justification to the conversion of the socialists to the bomb). French conventional forces during the Cold War were retrospectively described by strategists as aiming, in case of a major attack, at "giving time to the President for pressing the button".

²⁶ Jacques Chirac, Speech at the Île-Longue, January 19th 2006.

understood that the drivers of the original consensus and those nurturing its continuation are distinct: after the Cold War, the sudden realization of France's weakness (economic weakness, diminishing influence, negligible conventional forces, etc.) justified to stick to the weapon and turned the consensus into a new hybridation of security and prestige motives. I think that the French case illustrates how much conflated both drivers are: any country can indeed decide that it will always be safe by subordinating itself totally to the most powerful player of the game.

One last important point, that may seem annex but I think is always intertwined with the weapon, is the perception of nuclear civilian facilities. As evidenced in part I, the original move was common to both projects and it is not fussy to argue that the civilian consensus could act upon the consensus on the bomb. Under the IV° and V° Republics, civilian nuclear power was always much easier to promote politically than the weapon; this has changed. An appreciably strong movement exists today against the "tout-nucléaire" (against all odds since the energy crisis is progressively unfolding itself) which relies extensively upon the demonization of nuclear techniques, thus opposing the technocratic tropism of the state and one core element of the overall consensus. These movements surge periodically, as was the case in the 1970s against the Messmer Plan²⁷. To these critiques, the Chernobyl episode stands for the unveiling of the French state's addiction to the nuclear technique. The reluctance of the French state to deal with the possibility of reducing its reliance on nuclear power is obvious, and perhaps justified by the facts. Only in 2008 did the French government tighten the standards of nuclear transparency. Arguably, this may predict what would be the reactions of the authorities if ever confronted with similar contestation directed against the bomb itself. However, the overall resilience of the French public opinion to these scandals (particularly Fukushima) is but another confirmation of the pregnancy of the affinity developed in the 1960s and 1970s with nuclear techniques and backed by the technocratic construction of the state. The story of Chernobyl's cloud stopping at the Alpine frontier eventually became a joke, not the basis for a political movement.

III. The French Nuclear Consensus and contemporary Nuclear Crossroads

a. The French situation today and the consensus

More and more often, journalists and analysts tend to argue that the 'nuclear consensus' could very well be swept away by postmodern winds and the nuclear arsenal join the *Ligne Maginot* in the dustbin of history. The Report n°668 of the French Senate in 2012 insisted a lot on what it called the "Triple Contestation of Nuclear Weapons". It underlined that the traditional reluctance of the some sectors of the Army could meet with ever-increasing pleas for disarmament applied to France, and with the pressure from the outside, teased by the possibly forthcoming 2016 British choice on the maintenance of its already diminished deterrent. Of these three sources of contestation, discourses are probably the less subversive in the long-run, but they directly attack the reform-inhibiting nature of the consensus: *"there is no genuine debate, even in the Parliament. And as to public opinion, it is just a game, like asking a television audience a question such as 'do you consider nuclear weapons are necessary'"²⁸. While defense officials and strategists lament the constant cut-off of defense budgets and the pusillanimous "post-military spirit" which inspires it, the anti-nuclear weapon gains strength in France also²⁹. Abolitionists claim that the weapon has become useless and uselessly*

²⁷ Taccoen, Op. Cit.

²⁸ Quilès, Op. Cit.

²⁹ See Journé, *Armes de terreur*, L'Harmattan, 2010; or Hessel & Jacquard, *Exigez un désarmement nucléaire total*, 2012. In general, these writings echo the impetus given by some retired upper-level officials like Henry

costly, that it is clearly antidemocratic because the nuclear strike is arbitrary from a popular point of view, and of course that contemporary morality precludes any kind of use. Security threats, whose presence has been constantly underestimated in the analysis of the French proliferation, are undoubtedly too far away from the nation's current preoccupations. The 2008 White Book dedicated its chapter 18 to the issue of "the support of the nation" and suggested, aside the traditional recommendations concerning the greater involvement of volunteers and non-state actors, "policies of memory"³⁰ in order to compensate the incredulity of the nation on the threats and the vulnerabilities of the country; but it did not tackle the nuclear consensus. Yet, the "weak to the strong" posture means that the country puts its own existence at stake in order to counter an asymmetric nuclear threat³¹; and this simple fact should bring any policy-maker to a close scrutiny of the notion of 'nuclear consensus'. In this regard, the switch from "imposed casus non belli to consented casus belli" (Gallois) in the second nuclear age makes the issue critical. What was acceptable during the Cuban Missiles Crisis for survival was conceived as permanently questioned in Wohlstetter's fashion, is probably much less so today, especially when doctrines of use (tactical strikes, Pakistani's Cold Start) could tend to replace doctrines of deterrence (Tertrais). To Boniface, this contestation is the necessary product of the difficulties stemming from a popular mobilization anchored to the concept of 'deterrence of non-use'. He considers that the public opinion inevitably conflates deterrence with use and is unable to understand the "ironic virtues of the concept of deterrence"³². I think this explanation falls short, since the nature of the nuclear ideology included deterrence as part of the consensus on the possession of the bomb.

Financial constraints, though oft-emphasized, will not lead to such a highly political renouncement –plus, they remain reasonable. Yearly traditional budgetary cut-offs in the defense budget will certainly continue to affect mainly conventional forces and may then increase the opposition between conventional sectors and deterrence. Another line of argument draws upon mainstream strategic theories on the changes of war and the irrelevance of deterrence in the second nuclear age; this may shape policymakers' minds for a while, but most of these theories will probably be short-lived. In a broader perspective, the succession of civilian nuclear scandals (Three Miles Island, the "fissures affair", Chernobyl, Fukushima, the leaks of 2011) has quite weakened the faith in the nuclear energy and may affect the reputation of the nuclear technique as a whole.

But the crucial element is the external consensus. If ever NATO's nuclear forces in Europe are withdrawn and Britain opts for a posture of virtual deterrence or complete disarmament³³, France's 'consensus' will quickly become illusory, or dangerously portrayed as irresponsible stubbornness. Less strategic moves like a criminalization of the bomb under international law³⁴, and geopolitical shocks in nuclear politics (North Korea, Iran, changes in the dynamic of the TNP) could have the same outcome.

The hypothetical conclusion we could draw from this is that *if ever a frank and open public debate was to discuss the French deterrent, there exists a possibility that it might not confirm the decennial policy of deterrence.* This being said, it is simplistic to believe that the "nuclear reflex" is only the result of the absence of debate; the nuclear behavior is certainly very deeply rooted in the

³⁰ Livre Blanc de la défense nationale 2008, Odile Jacob, p. 299 and following.

Kissinger in the US (*Global Zero* Campaign, proposals for a European NFZ), or Alain Juppé and Michel Rocard in France, and the somewhat misguided interpretation of the Prague Speech.

³¹ « Brinkmanship posture », see Camille Grand, « The French Nuclear Exception »; and Alain Joxe, *Le Cycle de la dissuasion (1945-1990)*, 1990.

³² Pascal Boniface, *The future of the french nuclear posture*, p. 1.

³³ On Britain's reforms of its deterrent, see the thorough analysis in Louth, John, *Deterrence reform in the United Kingdom*.

³⁴ This fear motivated France's « declaratory interpretation » of the dispositions of the Rome Status. It emphasized France's "*right to self-defense and the deterrent nature of its nuclear weapon*".

population, even 20 years after the end of the Cold War. If we go back to the civilian side to pick up one example, no other country has been so fond of the idea of a breeding reactor. Moreover, no country has ever renounced to a well-developed nuclear arsenal. But, as the Senate report states, *"such a debate on nuclear deterrence in France is neither impossible nor the privilege of a small committee of policymakers"*³⁵.

It ensues that the logical conclusion drawn by the French authorities is that re-opening the debate would be incredibly dangerous for the French deterrent; it would mean, for the sake of transparency, opening a Pandora's Box (just like the tenants of non-proliferation fear as hell any renegotiation of the NPT). Of course, public debate would not help to opt for one or another kind of strategic doctrine, but it would certainly offer or deny popular support for (1) the decision to maintain the deterrent (partial or complete disarmament³⁶) and (2) the involvement in non-proliferation and disarmament policies (in the long-run the commitment to the Global Zero). Such positions as the refusal of "de-alerting" or Bucquet's straightforward conclusion that *"French independent deterrence is required as long as the world remains nuclear*"³⁷ might be contested. The fear is even stronger since theoretical debates do exist within the administration, especially on the possibility of "virtual deterrence", following the British trend. In such a case, highly publicized political decisions would certainly be inescapable, be it to abandon the weapon or one day to rebuild it.

b. Public Opinion, consensuses and the bomb

It appears then, that the existence or absence of a consensus and a publicized debate over the weapon is not without policy implications. As Bucquet notes, « [...] *the evolution of this opinion* [on the bomb] *is an important concern to monitor and to strengthen by French decision makers* [...] »³⁸. Public opinion is inescapable to sustain the strain of being nuclear, especially in the second nuclear age; public opinion, in as well as outside the country, is a factor of central importance in the way states shape their doctrines and reform their own arsenals. Accordingly, a genuine consensus on deterrence would provide appreciable benefits: it would legitimate the weapon and it may favor a higher compliance with its underlying logic.

The nuclear consensus, be it under the form of a fatalist concession or enthusiastic commitment, is a key factor in terms of credibility of the deterrent. Some officials in France have expressed concern about the nerve of the president to "push the red button". Raymond Aron, for example, said himself deeply convinced that no French president would ever have taken the decision to bomb the USSR; President Giscard D'Estaing confessed in his memoirs that he would never have done it³⁹. In the same fashion, Henri Pac led a study on the "ergonomics of the President". Again, the French doctrine of deterrence paradoxically fosters such a behavior since it refuses to envision the possibility of nuclear war. As many abolitionists noted, defense officials when asked what exactly would happen if it occurred, had no other answer than "it would mean deterrence has failed". In *Le Président et le Champignon*, General Lacaze described a trilateral relationship between the public opinion, the head of state and the bomb and emphasized the essential role of public support in the threat to retaliate. Bucquet sums it up perfectly when he writes that "the problem of "rare will" meets the problem of the support of the public opinion. A permanent effort must be fueled to maintain the invisible and psychological links between the Nation and the strategy of use"⁴⁰.

³⁵ Rapport du Sénat Français, Op. Cit., p. 6. Translation is mine.

³⁶ « Partial disarmament » essentially means the reduction of nuclear capabilities to SLBMs (4 SNLE).

³⁷ Bucquet, Op. Cit., p. 3.

³⁸ Bucquet, Op. Cit.

³⁹ Giscard d'Estaing, Le Pouvoir et la vie: "I would never take the decision that would wipe France out".

⁴⁰ Bucquet, Op. Cit., p. 19.

The question is worth being asked if a democracy can maintain the threat corresponding to nuclear deterrence without popular support; and it is probably true that displaying the commitment of the country as a whole to deterrence theoretically enhances its credibility. This being said, the average influence of the nuclear consensus on this decision, which is *par essence* exceptional, is today only a remote possibility. The theoretical foundations of such an argument do not seem to be confirmed by examples such as the Cuban Missile crisis, or the Falkland Crisis. I doubt we could ever rationalize the decision to launch a nuclear bomb in a context of mutual deterrence, but a cultural *ethos* shaped by the nuclear ideology may have a strong influence on the perception, the behavior and the use of the bomb in general.

Of even greater concern is the long-term credibility of the deterrent in terms of actualization, modernization, adaptation and competitiveness of the technology. In concrete terms, genuine consensus would make it easier for France to resist external pressures directed against its deterrent: the successful popular mobilization around the bomb was certainly the key element that brought France international acceptance of its nuclear status. It would also permit, as will certainly be needed one day, to rebuild the doctrine and/or the arsenal. This is undoubtedly the biggest pitfall of a strategy of 'virtual deterrence': how to convince populations now accustomed to a nuclear world and distancing themselves from security issues that a nuclear arsenal has to be rebuilt?

The *status quo* does not necessarily benefit to France's security. Mild policies, trying to conciliate deterrence and non-proliferation, deterrence of existential threats and interventionist capabilities, avoiding the question of the role of France in contemporary world politics, do more harm than generally believed. Pavlovian reflexes inherited from the Gaullist stance may very well play against the interest of the country. The 'nuclear consensus' reflects a broader paradox: while the French are extremely keen on international relations issues, the monopole of the president considerably marginalizes the debate internally. If ever a thorough reform of the arsenal was to be needed, popular support would become inescapable and rebuilding it extremely demanding in political terms.

Finally, the very concept of deterrence is self-performative. It is a "mental thing" as Delpech says, and this appreciation is paradoxically comforted by Sagan when he denounces the "fuzzy thinking" of deterrence. Whether we want it or not, nuclear deterrence is an act of faith that needs be sustained and preserved. As Charnay learnedly puts it: "I come to wonder if we postulate the terms of the existence of deterrence just like Kierkegaard postulated the existence of God"⁴¹.

c. 'Nuclear Consensus' and the European Deterrent

Why the French have promoted a European deterrent in the early 1990s is not as whimsical as it seems. Obviously, it was in the wake of the European Policy of Security and Defense consecrated by the 1997 Amsterdam Treaty (which formalized the so-called 'Petersberg Missions'), and a coherent response to the end of the Cold War. Some have tried to argue that this idea was defended by De Gaulle himself and merges into the will of refusing the American guardianship of Europe that always inspired the political approach of European integration the French have. However, the form it has taken lately is but ironic: France now proposes exactly what it rejected in the 1960s, namely some kind of extended deterrence⁴². Arguably, EU countries are now far more entangled than the Atlantic Bloc ever was (in 1995, France and the UK proclaimed that their vital interests could not be rationally separated from each other). Still, extended European deterrence would mean engaging France's

⁴¹ Delpech, *Deterrence in the 21st century* (chapter 3); Sagan, "The Perils of Proliferation"; Charnay in Pascallon, *La dissuasion nucléaire en question*, p. 55.

⁴² No consistent strategy of concerted deterrence has been elaborated since the 1993 Franco-British Joint Commission (the 2008 French White Book only presented European Defense as one among many concerns for the deterrent that could be extended if the President decided so). European Defense remains an extremely underdeveloped field and mostly rhetorical (Declaration of Saint-Malo, 1998).

survival for Hungary or ... Germany. Beyond the doctrine, the very spirit of the French deterrent (autonomy, the rank of France, the view that any chancellor is a Bismarck in the making, etc.) can seem incompatible with this project.

Notwithstanding the fact that this perspective is now very remote (because of pragmatic reasons: the frank refusal of most European countries and public opinions, the balance of power within the EU and vis-à-vis NATO, issue of a concerted decision-making), I argue that the European Deterrent represented a logical way-out. The project actually resembles the ECD episode in 1954 and evidences once and again the pitiful developments of European defense; it constitutes, just like the ECD did, a natural response to the geopolitical disruption. Thus, in what they considered to be the actualization of the 'nuclear consensus', Boniface & Thual reformulated it around 4 pillars, one being its Europeanization. At least at three respects, it tried to breathe life into the consensus:

- (1) It would have provided the French deterrent with another momentum for the post Cold-War era, relieved the burden of isolated deterrence and would have given it truly renewed political meaning. Indeed, the 1994 White Book associated deterrence and European Integration. But a silent and passive move towards extended deterrence ('par constat') would be useless in this respect.
- (2) It would have fitted very well in the core of the French perception of the bomb as a paradoxical instrument for peace (ideologically consistent).
- (3) It would have challenged -and even fostered- neither the powerful argument of the political utility of the bomb (President Hollande reaffirmed on March 11th 2012 during the campaign that "deterrence, permanent seat in the Security Council and credible capacity to intervene in crises: here lies the articulation that enables us to speak loud and express our views in the concert of nations") nor France's leading role in nuclear economics.

Concluding Remarks

When François Hollande reaffirmed on June 26th 2012 his commitment to preserve nuclear deterrence, he justified it by saying that *"it is an element that fosters peace"*. This is probably one of the strongest blocks in the building of the nuclear consensus: the French have cut short the theological debate. And yet, as Poirier authoritatively wrote about this theology, *« collective sensibility and experts' knowledge oscillate from one interpretation to the other, aware that they will never be done with* [this] *object, the cumbersome product of the Promethean will that halved History*^{#43}. The French deterrent cannot afford too long to remain a passive piece of the military heritage and a thing of the past; as long as it will remain so, it will remain vulnerable if ever nuclear deterrence becomes once again a vital security stake. Overall, the arguments in favor of keeping the bomb outweigh those of the abolitionists (at least to me); but there is no point impeding discussion for it would simply mean furthering the fossilization of the 'consensus'. We could be pleased with the solidity of the French commitment to deterrence, and certainly we should enjoy the remnants of the nuclear ideology and its corresponding economical, technological and identity-related benefits. The risk exists however that conviction may turn into blindness, and emotional attachment into mere folklore.

All this is actually part of a broader debate: France's security is left behind doors. The responsibility is not incumbent only to the French government, constitutional settings or national Medias: for sure mainstream thinking on the "post-historical European mood" or "*irrealpolitik*" (Védrine) has a point. Initiatives to revive those debates on national security are neither secondary nor cosmetic. Of course, the aim is not to bring the population to be enthusiastic with the idea of launching the most lethal instrument ever, or to raise a people of warmongers. The final recommendations of this paper exactly echo those of the above-mentioned n°668 Senate Report. The consensus is not to be broken, since it constitutes an appreciable advantage –as I endeavored to

⁴³ Poirier, Op. Cit., p. IX.

show. Instead, French authorities should kindle the debate as a way to generate a new consensus on the weapon. "Are at stake the honor of our democracy and the security of our country" solemnly warned the Report.

Obviously, the problem with a state-led debate, be it on national identity or nuclear deterrence, is that both parties consider a "debate" is the process that will eventually comfort their own views on the issue. Because no one can know wherever it will bring the country, "experts" reiterate that deterrence is insusceptible of pedagogy; but there is nothing in this world that the average Joe knows as well as the specialist. Furthermore, the elements of the French nuclear consensus lie in a vision and a choice, not on technical details or strategic virtuosity. Public Debate should not be confused with a referendum to vote the doctrine; it must be envisioned as a remedy to the decay of the consensus. In this perspective, a truly genuine debate cannot arise under mere decree of the government. It must appear relevant in the strategic context and/or correspond to important policy choices. My own view is that the European Deterrent constituted and could still constitute an excellent way out, whether in its "concerted deterrence" or "extended deterrence" versions, and could be the ground upon which to develop this debate.

REFERENCES

BEAUFRE, André, Dissuasion et stratégie, Armand Colin, 1964.

BENDJEBBAR, André, La bombe atomique et deux républiques, Thèse, Paris IEP, 2000.

ENGAMMARE, Philippe, *Les partis politiques et l'opinion face a la bombe atomique française*, Mémoire, Paris IEP, 1985.

BUCQUET, Eric, "The French Nuclear Policy in the New Century", CSC, 2000.

COURMONT, Barthélémy, "Doctrine Nucléaire Française: questions en suspens" in *Revue Internationale et Stratégique*, n°65, 2007.

DELPECH, Thérèse, *Deterrence in the 21st century*, RAND Corporation, 2012.

DOBRY, Michel, "Le Jeu du Consensus" in Pouvoirs, n°38, 1986.

DROUHAUD, Pascal, « La dissuasion nucléaire française et l'environnement international » in *Guerres mondiales et conflits contemporains*, n°223, 2006.

DUMOULIN, André, « Paysage Nucléaire et Choix Français » in *Politique Etrangère*, Spring 2010. GALLOIS, Pierre-Marie, *Stratégie de l'âge nucléaire*, Calmann-Lévy, 1960.

GERE, François, « La Bombe et la Mémoire » in *IFAS* (http://www.stratoanalyse.org/fr/spip.php?article192), February 2010.

GRAND, Camille, « French Nuclear Policy after the Cold War » (<u>http://www.idsa-india.org/an-jul8-3.html</u>).

GRAND, Camille, "The French Nuclear Exception" in *Occasional Papers*, Stimson Centre, n°38, 1998. GUTMANN, Francis, "Pour La Bombe" in *Revue Défense Nationale*, n°731, June 2010.

HANLEY, David, « The parties and the nuclear consensus » in Howorth & Chilton (ed), *Defence and Dissent in Contemporary France*, Londres, Palgrave Macmillan, 1984.

HECHT, Gabrielle, *The Radiance of France: nuclear power and national identity after the WWII*, Cambridge, 2009.

KLEIN, Jean, "La France face à la seconde ère nucléaire" in *Le Monde Diplomatique*, March 2006.

LOUTH, John, « Defence Reform in the UK: A Twenty-First century paradox » in IFRI *Focus Stratégique*, n°43, March 2013.

MESSMER, Pierre, « L'atome, cause et moyen d'une politique militaire autonome » in *Revue Défense Nationale*, n°266,1968.

MONGIN, Dominique & DUVAL, Marcel, *Histoire des forces nucléaires françaises depuis 1945*, Que sais-je, 1993

PASCALLON, Pierre (ed.), La dissuasion nucléaire française en questions, L'Harmattan, 2006.

PINTAT, Xavier & BOULAUD, Didier (dir.), « L'Avenir Des Forces Nucléaires Françaises », *Report of the French Senate*, n°668, July 2012.

POIRIER, Lucien, *La Crise des fondements*, Economica, 1994.

POIRIER, Lucien, « Le Deuxième Cercle » in Le Monde Diplomatique, July 1976.

QUILES, Paul, "Dissuasion Nucléaire: Vous Avez Dit Consensus? » in *L'Express*, January 4th, 2012.

QUILES, Paul, « Nuclear Weapons: A French Fib », *Global Zero Movement*, in Charles Leopold Mayer House, 2012.

QUINLAN, Michael, "Thinking About Nuclear Weapons" in *Whitehall Paper*, n°41, RUSI, 2005. SAGAN, Scott, "Why do states build nuclear weapons?" in *International Security*, vol. 21, n°3, Winter

1996.

SAGAN, Scott, "The perils of proliferation" in International Security, vol. 18, n°4, Spring 1994.

TACCOEN, Lionel, *Le Pari Nucléaire Français: histoire politique des décisions cruciales*, L'Harmattan 2003.

TERTRAIS, Bruno, *La France et la dissuasion nucléaire – concepts, moyens, avenir*, La Documentation Française, 2007.

VAÏSSE, Maurice, La France et l'atome : études d'histoire nucléaire, Bruylant, 1995.

YOST, David S., "France and West European Defense Identity" in *Survival*, vol. 33 (July/August 1991): 327-51. 39.

YOST, David S., "Nuclear Debates in France" in *Survival*, vol. 36, Issue 4, December 1994, 113-139.